Application No. 10/760,967
Response to Office Action dated 09/17/2007

## REMARKS

Applicants request that the amendments be entered and further reconsideration of the claims. Applicants assert that the amendments place the claims in condition for allowance and/or better condition for appeal. The amendments to claims 1, 9, and 17 do not add new matter or raise new issues because Applicants clarify that some of the pixels in the range are thinned out. Support in the originally filed specification for the amendments to claims 1, 9 and 17 is given in FIG. 3 and on page 7, lines 24-33 and page 8, lines 1-10 and page 11, lines 17-21 and lines 29-31. Applicants cancel claims 5, 13, and 21 without disclaimer or prejudice. Claims 1-4, 6-12, 14-20, and 22-24 are pending.

***The rejection under 35 U.S.C. §103(a)***

Applicants traverse the rejection of claims 1-3, 6, 7, 9-11, 14, 15, 17-19, 22 and 23 as being obvious over Wilder '871 in view of Koizumi '964 and the rejection of claims 4, 12, and 20 as being obvious over Wilder '871, Koizumi '964 and Oda '119.

Wilder '871 fails to teach or suggest a range specifying portion for determining the density of signal spacing, nor does Wilder '871 teach or suggest the selection portion for sending selection signals to the pixels, with some of the pixels thinned out in the range specified by the range specifying portion, as required by claims 1, 9 and 17.

Wilder '871 discloses a method of reading out an image with respective different resolutions which uses supervisory signals for determining which pixel signals and how many pixel signals are read out at any one time. First, the pixel signals from a particular region are read out individually to achieve a high resolution, or a predetermined unit number of pixels are merged into and read out as superpixel signals to achieve a low resolution. Thus, when reading an image, whole pixels in the region have to be supplied with selection signals whether at the highest resolution and at a lower resolution. To achieve lower resolution, the read-out pixel signals are subjected to combining processing. In other words, Wilder '871 teaches that **all** the pixels in the region are supplied with selection signals, **all** the pixel signals are read, and then are subject to individual pixel processing at a high resolution , or subject to superpixel processing in which all the pixel signals are processed simultaneously for low resolution.

At column 9, lines 25-32, Wilder '871 states that in the superpixel mode, "one, two, four or eight particular **adjacent** column (row) conductors" can be specified, that is, because the rows or columns are adjacent there is no selection portion or circuit wherein some of the pixels are thinned out, as taught and claimed by Applicants. At column 18, Wilder '871 teaches that even those the data from the pixels are not required, those pixels are still read, e.g., "[w]here only some pixels are of interest, the unimportant pixels may be read out as parts of large superpixels ... **no pixel is left unread** for more than one frame time," and Wilder '871 proceeds to present signal processing, computer programming, and optical integration techniques to disregard the signals from the unimportant pixels.

Wilder '871 cannot render Applicants' claimed invention as being obvious because Applicants' claimed invention offers an alternative solution to the processing of Wilder '871. Applicants' claimed invention alters the density of signal spacing by thinning out some of the pixels in order to obtain an image signal having regions with respective different resolutions in a single picture. Thus, the process and the MOS solid-state imaging device eliminates Wilder '871's process of first reading out all pixel signals of a single picture, storing those signals in a large memory, and then performing complex signal processing to obtain different regional resolutions. Thus, the imaging element of claims 1, 9 and 17 teaches a solution to the complex signal processing taught by Wilder '871. Advantages thus realized by a MOS solid-state imaging device with the claimed range specifying portion and the claimed selection portion to send signals to pixels within that range wherein some of the pixels are thinned out make it possible to obtain an image having different resolutions in specified regions; make it possible to have a smaller memory in the device; and make it possible to maintain a fast frame rate.

Applicants further assert that claims 2-4 and 6-8, 10-12 and 14-16, 18-20 and 22-24 are allowable at least in part by their dependence on claims 1, 9, and 17, respectively. The references of Koizumi '964, Oda '119, Saitoh '304, and Kondo '405 do not supplement the disclosure of Wilder '871 to teach a MOS solid-state imaging element having a range specifying portion or circuit and a selection portion or circuit wherein some of the pixels are thinned out in the range determined by the range specifying portions or circuits.

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With respect to the rejection of claims 5, 13, and 21 as being obvious over Wilder '871 in view of Koizumi '964, Oda '119, and Saitoh '304, the rejection is moot because those claims are cancelled. Still, Applicants do not concede the correctness of the rejection.

Applicants request the Examiner to enter the amendments because they do not raise new issues nor do they require a new search. Applicants request prompt allowance of claims 1-4, 6-12, 14-20, and 22-24 in view of the amendments and remarks above. If there are any outstanding issues that can easily be resolved, the Examiner is invited to telephone the primary attorney, Douglas P. Mueller, at 612.455.3804.

Respectfully submitted,



HAMRE, SCHUMANN, MUELLER & LARSON, P.C.
P.O. Box 2902
Minneapolis, MN 55402-0902
(612) 455-3800

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By: _____
Douglas P. Mueller
Reg. No. 30,300
DPM/KO/ls